

amended claims as required by required by 37 C.F.R. §1.121(c)(ii) are provided in the Appendix to this Amendment.

See Amend A

1.-28. (Cancelled)

29. An electro-kinetic transporter-conditioner, comprising:

- a housing;
- a first electrode, disposed in said housing;
- a second electrode, removably disposed in said housing, having a base member;
- means, attached to said base member, for frictionally cleaning said first electrode whenever said base member of said second electrode is moved within said housing.

30. The electro-kinetic transporter-conditioner of claim 29, wherein said means for frictionally cleaning includes a strip of flexible electrically insulating material having a first end attached to said base member, and having a second end that defines a slit;

said strip extending from said base toward and beyond said first electrode such that said first electrode fits frictionally within said slit when said second electrode is disposed in said housing.

31. The electro-kinetic transport-conditioner of claim 30, wherein said strip has at least one characteristic selected from a group consisting of (a) said strip includes a polyester film, (b) said strip

includes a polyimide film, (c) said strip has a strip thickness of about 0.1 mm, (d) slit has a slit length of at least 0.25", and (e) said slit has a slit width less than a thickness of said first electrode.

32. The electro-kinetic transport-conditioner of claim 30, wherein an inside bottom surface of said housing includes an upwardly projecting vane disposed to deflect said second end of said strip upwardly and away from said first electrode when said second electrode is fully disposed in said housing.

33. The electro-kinetic transporter-conditioner of claim 29, wherein said means for frictionally cleaning includes:

an arm, made of electrically insulating material, having a first distal end and a second end that is biasedly pivotably attached to said base;

a strip of flexible electrically insulating material having a first end attached to first distal end of said arm, and having a second end that defines a slit;

said arm and said strip extending from said base toward and beyond said first electrode such that said first electrode fits frictionally within said slit when said second electrode is disposed in said housing.

34. The electro-kinetic transporter-conditioner of claim 33, wherein said arm is pivotably biased towards an angle of about 90° relative to longitudinal axis of said second electrode.

35. The electro-kinetic transporter-conditioner of claim 33, wherein an inside bottom portion of said housing includes an upwardly projecting vane disposed to deflect said first distal end of said arm upwardly

and away from said first electrode when said second electrode is fully disposed in said housing.

36. The electro-kinetic transporter-conditioner of claim 35, wherein:

said base of said second electrode includes a downwardly projecting member;

said inside bottom portion of said housing defines an opening sized to receive said projecting member of said base when said second electrode is fully inserted into said housing;

wherein said arm and said strip attached thereto are pivoted upward and parallel to a longitudinal axis of second electrode.

37. The electro-kinetic transporter-conditioner of claim 32, further including a barrier wall mounted on said inside bottom surface, said barrier wall disposed between a bottommost portion of said first electrode and a bottommost portion of said second electrode.

38. (Cancel)

39. An electrode cleaner for use with an electro-kinetic transporter-conditioner that includes a first electrode, and a removable second electrode having a base member, the electrode cleaner comprising:

a strip of flexible electrically insulating material having a first end attached to said base member, and having a second end that defines a slit;

said strip extending from said base toward and beyond said first electrode such that said first

electrode fits frictionally within said slit when said second electrode is disposed for operation of said electro-kinetic transporter-conditioner;

wherein movement of said base member causes said slit in said strip to frictionally clean an outer surface of said first electrode.

40. The electrode cleaner of claim 39, further including:

means for deflecting at least the slit-containing end of said strip into a position parallel to a longitudinal axis of said first electrode when said electro-kinetic transporter-conditioner is in operation.

41. The electrode cleaner of claim 40, wherein said means for deflecting includes a vane disposed within said transporter-conditioner such that during operation of said transporter-conditioner a distal portion of said vane contacts and so deflects said slit-containing end of said strip.

42. The electrode cleaner of claim 40, wherein said means for deflecting includes a biased pivot mechanism that attaches said strip to base of said second electrode.

43. An electro-kinetic transporter-conditioner, comprising:

a housing;

a first electrode, disposed in said housing;

a second electrode, removably disposed in said housing, having a base member;

a source of high voltage, disposed in said housing, coupled between said first electrode and said second electrode; and

at least one bead-shaped member defining a through opening;

wherein said first electrode passes through said through opening and an outer surface of said first electrode may be at least partially frictionally cleaned by movement of said bead-shaped member along a length of said first electrode.

44. The electro-kinetic transporter-conditioner of claim 43, wherein said through opening has a characteristic selected from a group consisting of (a) said through opening is formed through a geometric center of said bead-shaped member, (b) said through opening is formed parallel to but offset from a longitudinal axis of said bead-shaped member, (c) said through opening is formed offset from an inclined axis relative to a longitudinal axis of said bead-shaped member, (d) a cross-section of said through opening is circular, and (e) a cross-section of said through opening is non-circular.

45. The electro-kinetic transporter-conditioner of claim 43, wherein a diameter of said through opening exceeds a diameter of said first electrode by at least 0.5 mm.

46. The electro-kinetic transporter-conditioner of claim 43, wherein:  
a bottom end of said first electrode is retained in a pylon; and

said bead-shaped member is bell-shaped such that when in a bottommost position along said first electrode, an air gap exists between an outer surface of said first electrode and an inner surface of said bead-shaped member.

47. An electro-kinetic transporter-conditioner, comprising:

a housing;

a first electrode, disposed in said housing;

a second electrode, removably disposed in said housing;

a high voltage generator disposed in said housing, coupled with said first electrode and said second electrode; and

wherein the first electrode is frictionally cleaned whenever said second electrode is moved within said housing.

48. An electro-kinetic transporter-conditioner, comprising:

a housing;

a first electrode, disposed in said housing;

a second electrode removably disposed in said housing;

a source of high voltage coupled with said first electrode and said second electrode;

at least one bead-shaped member defining a through opening; and

wherein movement of said bead-shaped member along said first electrode frictionally cleans the outer surface of said first electrode.

49. An electro-kinetic transporter-conditioner, comprising:
- a housing;
  - a first electrode, disposed in said housing;
  - a second electrode removably disposed in said housing;
  - a source of high voltage, disposed in said housing, coupled with said first electrode and said second electrode;
  - an electrode cleaning mechanism engaging said first electrode;
  - wherein movement of said electrode cleaning mechanism frictionally cleans said first electrode.

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~~50. (Once Amended) The electro-kinetic transporter-conditioner of claim 29, wherein an inside bottom portion of said housing includes an upwardly projecting vane disposed to deflect said cleaning means upwardly and away from said first electrode when said second electrode is fully disposed in said housing.~~

51. An electro-kinetic transporter-conditioner, comprising:
- a housing;
  - a first electrode, disposed in said housing;
  - a second electrode, removably disposed in said housing, having a base member;
  - a source of high voltage, disposed in said housing, coupled between said first electrode and said second electrode; and
  - at least one slidable member having a through opening;

wherein said first electrode passes through said through opening and an outer surface of said first electrode may be at least partially frictionally cleaned by movement of said slidable member along a length of said first electrode.

52. The electro-kinetic transporter-conditioner of claim 51, wherein said through opening has a characteristic selected from a group consisting of (a) said through opening is formed through a geometric center of said slidable member, (b) said through opening is formed parallel to but offset from a longitudinal axis of said slidable member, (c) said through opening is formed offset from at inclined relative to a longitudinal axis of said slidable member, (d) a cross-section of said through opening is circular, and (e) a cross-section of said through opening is non-circular.

53. The electro-kinetic transporter-conditioner of claim 51, wherein a diameter of said through opening exceeds a diameter of said first electrode by at least 0.5 mm.

54. The electro-kinetic transporter-conditioner of claim 51, wherein:

a bottom end of said first electrode is retained in a pylon; and

said slidable member is bell-shaped such that when in a bottommost position along said first electrode, an air gap exists between an outer surface of said first electrode and an inner surface of said slidable member.

55. An electro-kinetic transporter-conditioner, comprising:



a housing;  
a first electrode, disposed in said housing;  
a second electrode removably disposed in said housing;  
a source of high voltage coupled with said first electrode and said second electrode;  
at least one slidable member having a through opening; and  
wherein movement of said slidable member along said first electrode frictionally cleans the outer surface of said first electrode.

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56. (New) An electro-kinetic transporter-conditioner, comprising:

a housing;  
a first electrode, disposed in said housing;  
a second electrode, removably disposed in said housing;  
means, attached to said second electrode, for frictionally cleaning said first electrode whenever said second electrode is moved within said housing.

57. (New) The electro-kinetic transporter-conditioner of claim 56, wherein said means for frictionally cleaning includes a strip of flexible electrically insulating material having a first end associated with said second electrode, and having a second end that defines a slit;  
said strip extending toward and beyond said first electrode such that said first electrode fits frictionally within said slit when said second electrode is disposed in said housing.

58. (New) An electrode cleaner for use with an electro-kinetic transporter-conditioner that includes a first electrode, and a removable second electrode, the electrode cleaner comprising:

a strip of flexible electrically insulating material having a first end associated with said second electrode, and having a second end that defines a slit;

said strip extending toward and beyond said first electrode such that said first electrode fits frictionally within said slit when said second electrode is disposed for operation of said electro-kinetic transporter-conditioner;

wherein movement of said second electrode causes said slit in said strip to frictionally clean an outer surface of said first electrode.

59. (New) The electrode cleaner of claim 58, further including:

means for deflecting at least the slit-containing end of said strip away from said first electrode when said electro-kinetic transporter-conditioner is in operation.

60. (New) The electrode cleaner of claim 59, wherein said means for deflecting includes a vane disposed within said transporter-conditioner such that during operation of said transporter-conditioner a distal portion of said vane contacts and so deflects said slit-containing end of said strip.

61. (New) An electro-kinetic transporter-conditioner, comprising:

a housing;

a first electrode, disposed in said housing;

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cont

a second electrode, removably disposed in said housing;  
a source of voltage, disposed in said housing, coupled between said first electrode and said second electrode; and  
at least one bead-shaped member defining a through opening;  
wherein said first electrode passes through said through opening and an outer surface of said first electrode can be at least partially frictionally cleaned by movement of said bead-shaped member along a length of said first electrode.

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cont

62. [(New)] The electro-kinetic transporter-conditioner of claim 61, wherein said through opening has a characteristic selected from a group consisting of (a) said through opening is formed through a geometric center of said bead-shaped member, (b) said through opening is formed parallel to but offset from a longitudinal axis of said bead-shaped member, (c) said through opening is formed offset from at inclined relative to a longitudinal axis of said bead-shaped member, (d) a cross-section of said through opening is circular, and (e) a cross-section of said through opening is non-circular.

63. [(New)] An electro-kinetic transporter-conditioner, comprising:  
a housing;  
a first electrode, disposed in said housing;  
a second electrode, disposed in said housing;  
a source of voltage, disposed in said housing, coupled between said first electrode and said second electrode; and

at least one slidable member having a through opening;

wherein said first electrode passes through said through opening and an outer surface of said first

electrode can be at least partially frictionally cleaned by movement of said slidable member along a length of said first electrode.